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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/630,815	07/29/2003	John Carney	007412.01068	8157
71867 7590 04/21/2011 BANNER & WITCOFF, LTD ATTORNEYS FOR CLIENT NUMBER 007412 1100 13th STREET, N.W. SUITE 1200 WASHINGTON, DC 20005-4051			EXAMINER STOKELY-COLLINS, JASMINE N	
			ART UNIT 2423	PAPER NUMBER
			MAIL DATE 04/21/2011	DELIVERY MODE PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/630,815

**Applicant(s)**

CARNEY ET AL.

**Examiner**

JASMINE STOKELY-COLLINS

**Art Unit**

2423

**Period for Reply** -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 12 July 2010.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1,2,4-6,8,9 and 13-23 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,2,4-6,8,9 and 13-23 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-945)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

**DETAILED ACTION**

***Response to Arguments***

1. Applicant's arguments with respect to claims 1-2, 4-16, and 19 have been considered but are moot in view of the new ground(s) of rejection.

***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-2, 4-6, 8-9, 13-16, and 19-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Deller et al (7,516,468 B1) in view of Lemmons (US 2003/0028873 A1) and Yokote et al (US 6,067,108).

Regarding claim 1, Deller teaches generating, at an application server (col. 7 ll. 38-44), and interactive television (iTV) application which includes an application template (script 207) and a dynamic data file (business data 202) (col. 6 ll. 44-49), wherein the application template specifies layout and behavior of the iTV application (col. 2 ll. 54-58);

storing the dynamic data file in the centralized application management system (col. 6 ll. 63-66 and col. 7 ll. 3-5 teach dynamic data is "made available" to the client and "downloaded" from the broadcast network upon request. This implies the dynamic data is" stored at the interactive television service provider.

The headend storage system used to store and manage downloading of the dynamic data is a "centralized application management system");

delivering the optimized iTV application including the application template and dynamic data file as separate files to the particular client device over a distribution network (col. 5 ll. 55-58; col. 7 ll. 3-5 also teaches dynamic data being received separately as a download for the broadcast network).

Deller does not teach the iTV application includes programming rules, the application template refers to programming rules for selecting content to be placed at a location within the iTV application, wherein the programming rules select the content from the dynamic data file based on multiple selection criteria; storing the application template and programming rules as separate files in the centralized application management system; optimizing the iTV application for delivery from the centralized application management system by converting the content in the dynamic data file to a specific format displayable by a particular client device of one or more client devices; delivering the programming rules to the particular client device; and delivering the dynamic data file in the converted format to the particular client device.

Lemmons teaches a method of inserting dynamic objects, similar the dynamic data of Deller, into a television presentation. The completed graphical presentation contains dynamic objects (see sect 0049 label graphics files ad fig. 3b "pizzahut.bmp" and "XYZLogo.jpg") which are inserted according to rules dictating which ads may be placed in which locations (attributes) (sect. 0049) (i.e.

"the iTV application includes programming rules, the application template refers to programming rules for selecting content to be placed at a location within the iTV application"). When one of the plurality of attributes for an advertiser allows the associated advertising object to be placed in the ad, a separate graphics file representing the object is selected for placement in the television presentation (see fig. 3b where the last item in each entry is the filename for the actual object, sect. 0049 "General Electric may be accompanied by a list of attributes 310. Such attributes 310 may include actual objects, such as "stove," "refrigerator," "toaster," and other actual objects or categories such as appliances, etc. Alternatively, advertisers may wish to have the opportunity to advertise on an available blank space; in this case, the advertiser may submit "blank space" as one of their attributes. For example, the advertiser Joe's Appliances 316, as seen in entry 312, may elect to list "blank space" 314 as an attribute, which would allow Joe's Appliances the opportunity to be chosen out of one or more advertisers to advertise on a blank space in the video content as well as to apply an advertisement to an actual object.") (i.e. "wherein the programming rules select the content from the dynamic data file based on multiple selection criteria"). It would have been obvious to one of ordinary skill in the art at the time the invention was made to include programming rules for

dictating how to place dynamic data, in the form of advertisements, into a television presentation for the benefit of more efficiently placing advertisement opportunities by targeting specific demographics (sect. 0013).

Lemmons also teaches the actual dynamic object referenced in the attribute files are graphics files which are displayable on the television receiver (see fig. 3b graphics files 322 and 324) (i.e. "optimizing the iTV application for delivery from the centralized application management system by converting the content in the dynamic data file to a specific format displayable by a particular client device of one or more client devices"). Regarding "delivering the programming rules to the particular client device", the combination of Deller and Lemmons would render it obvious to send the programming rules files to a client; in Deller, the receiver combines the application template and dynamic data to generate the graphical presentation (col. 6 ll. 66-col. 7 ll. 3). The programming rules (attributes) must be consulted when the receiver downloads dynamic data for insertion into the TV presentation. Given the structure taught by Deller, those rules must be located either at the headend/server or the client. Sending the rules to the client would have been an obvious option, where the benefit over server storage would be to reduce the load on the server. Further, Lemmons teaches personalizing the targeted labels on a per-household, or per-user basis (sect. 0013). Storing programming rules for each user on the server would require a significant amount of added storage.

Converting the dynamic data file into a format displayable by a television receiver and "delivering the dynamic data file in the converted format to the particular client device" would have been obvious with the combination of Deller and Lemmons for the benefit of efficiency because converting each advertisement object to a format once at the headend and transmitting them to appropriate receivers when needed is much more efficient than converting the advertisements at each receiver, each time the object is requested; performing one conversion per ad (at the headend) is much more efficient than performing X conversions per ad (at the receiver), where X is the summation of each receiver requesting the ad object multiplied by the number of times that receiver requests the ad object.

Deller in view of Lemmons does not explicitly teach storing the application template and programming rules as separate files in the centralized application management system.

However, Yokote teaches a system for storing massive amounts of interactive application data on in a server at the headend (abstract). This allows the headend to service large amounts of interactive applications to large amounts of customers rapidly and efficiently (col. 2 ll. 18-23). It would have been obvious to one of ordinary skill in the art at the time the invention was made to store the created applications and compiled business data at the headend, and only retrieve them when needed, in order to reduce memory requirements at the client device.

Regarding claim 2, when read in light of claim 1, Deller further teaches the iTV applications comprise one or more of interactive program guides, television menus, content services, virtual channels, video on demand applications, personal video recorder applications, broadcast on demand applications, enhanced television services applications (col. 1 ll. 33-52 teach the types of applications intended for the invention), help, customer support, self service, games, or data service application

Regarding claim 4, when read in light of claim 3, Deller further teaches the delivering the optimized iTV applications to the one or more devices in response to requests from the one or more client devices, respectively (col. 5 ll. 12-18 teach an upstream communication link from the user to the interactive service provider that would enable user input for requesting application downloads).

Regarding claim 5, when read in light of claim 1, Deller further teaches the iTV application conforms to an extensible markup language (XML) authoring specification (col. 5 ll. 43-64)

Regarding claim 6, when read in light of claim 5, Deller in view of Lemmons further teaches the presentation of the content by the one or more



client devices is accommodated through interpreting the application according to the XML authoring specification (Deller col. 5 ll. 50-52).

Regarding claim 8, when read in light of claim 1, Deller further teaches the framework for iTV application accommodates selection of the content at a time of preparation of the content, or at a time of execution of the iTV application by the one or more client devices (col. 6 ll. 44-49, 59-62, 66-col. 7 ll. 3).

Regarding limitation "such selection being made according to one or more of the programming rules", Lemmons teaches targeted advertising in page 1, section 0013. The selection of advertisements according to viewer demographic parameters constitutes business rules. It would have been obvious to one of ordinary skill in the art to selectively apply which advertisements will be presented to a viewer for the benefit of increasing the likeliness that a viewer will respond to the advertisement.

Regarding claim 9, when read in light of claim 1, Deller in view of Lemmons further teaches the programming rules comprise rules for automating the selection of product offerings, promotions, advertising campaigns, VOD (Lemmons teaches automatically defining spaces in which ads can be placed, title, pg. 9 sect. 0081), broadcast-on-demand, transactional opportunities, and/or other types of content across disparate television services.

Regarding claim 13, when read in light of claim 1, Deller in view of Lemmons further teaches the multiple selection criteria include one or more of location (Lemmons teaches the rules for placing and/or automating product offerings accommodate location (pg. 9 sect. 0081), current channel, current channel family, current channel category, time of day, offering category, current program, current program genre, current iTV application, current content type, and subscriber profile (Lemmons teaches advertisements may be personalized based on a per-viewer basis in pg. 1 sect. 0013).

Regarding claim 14, when read in light of claim 1, Deller in view of Lemmons further teaches the programming rules accommodate subscriber-specific rules according to a subscriber profile associated with a particular one of the client devices (Lemmons teaches advertisements may be personalized based on a per-viewer basis in sect. 0013, sect. 0063). It would have been obvious to one of ordinary skill in the art at the time the invention was made to use a viewer profile in order to aid in targeting advertisements to specific viewers. It is further obvious to store the profile information on the individual set-top boxes for the benefit of avoiding the need for large storage capacities at the headend to store all of the subscriber's profiles.

Regarding claim 15, when read in light of claim 14, Deller further teaches the iTV application is configured to respond in a subscriber-specific manner to user interactions with the iTV application at the one or more client devices (col. 5 ll. 64-col. 6 ll. 8).

Regarding claim 16, when read in light of claim 1, Deller in view of Lemmons further teaches the programming rules are selected dynamically at the time of execution of the iTV applications, or at a time of application generation (Deller teaches in col. 6 ll. 44-49, 59-62, 66-col. 7 ll. 3 and fig. 3 that ads are inserted before being streamed to user devices. Lemmon's business rules apply to post-production, the placement of ads in Deller's invention takes place before the data is sent to the streamer. When the references are taken in combination, the ads would be inserted after development of the application template and before transport of the completed application, as disclosed in Deller fig. 3).

Regarding claim 19, when read in light of claim 1, Deller further teaches the generating of the iTV application is performed by one or more servers located at a data center (authoring tool 206) (col. 7 ll. 37-43); the optimizing is performed at a distribution center (compiler 320 provides optimization col. 6 ll. 59-62, compiler 320 may be located at the head end col. 7 ll. 37-43); and

the centralized application management system (located at the set-top box, col. 7 ll. 37-43) is located remotely from the data center and distribution center.

Regarding claim 20, when read in light of claim 19, Deller in view of Lemmons and Yokote further teaches delivering the generated iTV application from the data center to the application management system; delivering the stored iTV application from the application management system to the distribution center; and delivering the optimized iTV application from the distribution center to the particular client device over the distribution network (see Deller fig. 3 where the iTV application is created at the authoring tool 206/data center. Yokote's teaching of storing data in at the headend would result in storage somewhere between creation at authoring tool 206 and distribution at steamer 310. Therefore, the combination of Deller and Yokote logically results in the iTV application beginning at the authoring tool/data center, then moving to storage at an "application management center" as an intermediate step before distribution to the set top box receivers);.

Regarding claim 21, when read in light of claim 1,

Deller does not teach generating updated programming rules; replacing the programming rules stored on the centralized application management system with the updated programming rules; and delivering the updated programming rules to the particular client device over the distribution network.

However, Lemmons further teaches generating updated programming rules (the programming rules cited by the examiner as being taught by Lemmons. Lemmons indicates that the advertisement opportunities available to advertisers is temporary, and based on a financial contract; See sect. 0062 where ad space may be based on annual fees. This implies that the advertisers may change, where each attribute file is associated with an advertiser. Varying advertisers results in varying attribute files);

replacing the programming rules stored on the centralized application management system with the updated programming rules (Although Lemmon's does not explicitly teach updating the database of advertisers, it is obvious to update the database to reflect advertisers who currently have advertising contracts for the benefit of maintaining up-to-date information regarding the current state of advertising customer accounts. This is a basic business concept.); and

Regarding "delivering the updated programming rules to the particular client device over the distribution network" the combination of Deller and Lemmons would render it obvious to send current programming rules files to a client; in Deller, the receiver combines the application template and dynamic data to generate the graphical presentation (col. 6 ll. 66-col. 7 ll. 3). The programming rules (attributes) must be consulted when the receiver downloads dynamic data for insertion into the TV presentation. Given the structure taught by Deller, those rules must be located either at the headend/server or the client. Sending the

rules to the client would have been an obvious option, where the benefit over server storage would be to reduce the load on the server. Further, Lemmons teaches personalizing the targeted labels on a per-household, or per-user basis (sect. 0013). Storing programming rules for each user on the server would require a significant amount of added storage.

Regarding claim 22, Deller teaches a terminal (set-top box receiver col. 7 ll. 40-44) comprising:  
computing hardware and memory storing instructions that when executed by the computing hardware cause the terminal to perform operations including:  
receiving an application template, programming rules, and a dynamic data file as separate files, which together make up an interactive television (iTV) application (col. 5 ll. 55-58; col. 7 ll. 3-5 also teaches dynamic data being received separately as a download for the broadcast network), wherein the application template specifies layout and behavior of the iTV application (col. 2 ll. 54-58);  
and  
evaluating the template and dynamic data file to render the iTV application on a display (col. 5 ll. 50-52).

Deller does not teach receiving programming rules; wherein the application template refers to the programming rules for selecting content to be placed at a location within the iTV application, and wherein the programming rules select the content from the dynamic data file based on multiple criteria

specific to the terminal; and evaluating the programming rules to render the iTV application on a display.

Lemmons teaches a method of inserting dynamic objects, similar the dynamic data of Deller, into a television presentation. The completed graphical presentation contains dynamic objects (see sect 0049 label graphics files ad fig. 3b "pizzahut.bmp" and "XYZlogo.jpg") which are inserted according to rules dictating which ads may be placed in which locations (attributes) (sect. 0049). When one of the plurality of attributes for an advertiser allows the associated advertising object to be placed in the ad, a separate graphics file representing the object is selected for placement in the television presentation (see fig. 3b where the last item in each entry is the filename for the actual object, sect. 0049 "General Electric may be accompanied by a list of attributes 310. Such attributes 310 may include actual objects, such as "stove," "refrigerator," "toaster," and other actual objects or categories such as appliances, etc. Alternatively, advertisers may wish to have the opportunity to advertise on an available blank space; in this case, the advertiser may submit "blank space" as one of their attributes. For example, the advertiser Joe's Appliances 316, as seen in entry 312, may elect to list "blank space" 314 as an attribute, which would allow Joe's Appliances the opportunity to be chosen out of one or more advertisers to

advertise on a blank space in the video content as well as to apply an advertisement to an actual object.”) (i.e. “wherein the programming rules select the content from the dynamic data file based on multiple selection criteria” and “evaluating the programming rules to render the iTV application on a display”). It would have been obvious to one of ordinary skill in the art at the time the invention was made to include programming rules for dictating how to place dynamic data, in the form of advertisements, into a television presentation for the benefit of more efficiently placing advertisement opportunities by targeting specific demographics (sect. 0013).

Regarding “receiving programming rules”, the combination of Deller and Lemmons would render it obvious to send the programming rules files to a client; in Deller, the receiver combines the application template and dynamic data to generate the graphical presentation (col. 6 ll. 66-col. 7 ll. 3). The programming rules (attributes) must be consulted when the receiver downloads dynamic data for insertion into the TV presentation. Given the structure taught by Deller, those rules must be located either at the headend/server or the client. Sending the rules to the client would have been an obvious option, where the benefit over server storage would be to reduce the load on the server. Further, Lemmons teaches personalizing the targeted labels on a per-household, or per-user basis (sect. 0013). Storing programming rules for each user on the server would require a significant amount of added storage.



Regarding claim 23, when read in light of claim 22, Deller does not teach the operations further include: receiving an updated programming rules file; and rendering the iTV application based on the updated programming rules file.

However, Lemmons further teaches generating updated programming rules. The programming rules cited by the examiner as being taught by Lemmons. Lemmons indicates that the advertisement opportunities available to advertisers is temporary, and based on a financial contract; See sect. 0062 where ad space may be based on annual fees. This implies that the advertisers may change, where each attribute file is associated with an advertiser. Varying advertisers results in varying attribute files. The combination of Deller and Lemmons would render it obvious to send current programming rules files to a client (i.e. "receiving an updated programming rules file"); in Deller, the receiver combines the application template and dynamic data to generate the graphical presentation (col. 6 ll. 66-col. 7 ll. 3). The programming rules (attributes) must be consulted when the receiver downloads dynamic data for insertion into the TV presentation. Given the structure taught by Deller, those rules must be located either at the headend/server or the client. Sending the rules to the client would have been an obvious option, where the benefit over server storage would be to reduce the load on the server. Further, Lemmons teaches personalizing the targeted labels on a per-household, or per-user basis (sect. 0013). Storing programming rules for each user on the server would require a significant amount of added storage. Lemmons teaches the rules (attributes) are used to

insert the ads into a television program to be rendered (sect. 0049) (i.e. "rendering the iTV application based on the updated programming rules file")

4. Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over Deller et al (US 7,516,468 B1) in view of Lemmons (US 2003/0028873 A1) and Yokote et al (US 6,067,108), and further in view of Krewin et al (US 2002/0078444).

Regarding claim 17, when read in light of claim 1, Deller in view of Lemmons and Yokote teaches the system of claim 1.

Deller in view of Lemmons does not teach the iTV application accommodates the programming rules, so as to permit a selection and use of a specific programming rule at a time of execution of the iTV application.

Krewin teaches a system for targeted advertisement delivery in which rules regarding ad placement are applied at the time of intended presentation to the viewer (pg. 5 sect. 0081-0084). It would have been obvious to one of ordinary skill in the art at the time the invention was made to place ads in an application at the time of execution for the benefit of avoiding redundant commercial transmission, as is proposed by other methods of targeted advertisement insertion (pg. 2 sect. 0013).

5. Claim 18 is rejected under 35 U.S.C. 103(a) as being unpatentable over Deller et al (US 7,516,468 B1) in view of Lemmons (US 2003/0028873 A1) and Yokote et al (US 6,067,108), and further in view of Markel (US 7,162,697 B2).

Regarding claim 18, when read in light of claim 1, Deller in view of Lemmons and Yokote further teaches the iTV application conforms to an authoring specification, which provides a common model for provisioning, managing, deploying (all applications are streamed through streamer 310), advertising and commerce (col. 2 ll. 59-66), layout (Deller col. 2 ll. 56-58), animation, dynamic data insertion (Deller col. 3 ll. 4-6), events and navigation, and optimization of the iTV applications.

Deller in view of Lemmons does not teach this can be done across different iTV operating environments.

Markel teaches text based script files, such as those produced by the authoring tool in Deller, can be sent through parsers which each support a specific platform (abstract). It would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the parsers taught by Markel in the system taught by Deller for the benefit of avoiding redundant application development and compilation for multiple, different target platforms.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JASMINE STOKELY-COLLINS whose telephone

number is (571) 270-3459. The examiner can normally be reached on M-F 9:30-5:30 EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrew Koenig can be reached on (571) 272-7296. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Jasmine Stokely-Collins/  
Examiner, Art Unit 2423

/Dominic D Saltarelli/  
Primary Examiner, Art Unit 2421